

SYSTEM AND METHOD FOR DETERMINING THE NTH STATE OF LINEAR FEEDBACK SHIFT REGISTERS

Abstract

The Nth state of an n-stage linear feedback shift register (LFSR) used to generate pseudo random binary sequences or patterns, and which may be configured as a multiple input signature register (MISR) or single input signature register (SISR) to compress data and generate signatures, is determined by building a look-up table of n-bit states for latch positions of the linear feedback shift register; obtaining the modulo remainder of the Nth state; and generating the Nth state directly from the modulo remainder and n-bit states.